

Application No. 09/732,241
 Response Under 37 C.F.R. § 1.111 dated September 25, 2006
 Reply to Office Action of June 26, 2006

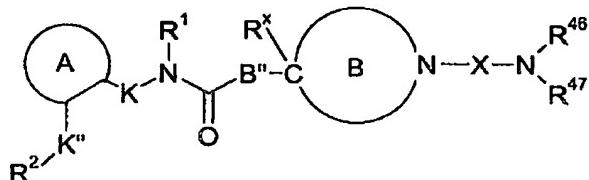
PATENT
 Attorney Docket No. P-095-US1
 Customer No. 27038

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II. LISTING OF THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Previously presented). A compound of the formula:



wherein:

A is phenyl;

B'' is -O-;

R¹ is alkyl, alkenyl, or alkynyl, each optionally substituted with 1 to 5 alkoxy or fluoro substituents;

R² is hydrogen or alkyl;

R³ is phenyl;

K is a bond;

K'' is a bond; and

B is a piperidine ring;

R⁴⁶ is alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, or heterocycle;

R⁴⁷ is alkyl, substituted alkyl, aryl, acyl, heterocycle, or -COOR⁵⁰ where R⁵⁰ is alkyl; or

R⁴⁶ and R⁴⁷ together with the nitrogen atom to which they are attached form a heterocycle, which heterocycle is optionally substituted with one or more alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, acyl, acylamino, acyloxy, amino, substituted amino, aminoacyl, aminoacyloxy, oxyaminoacyl, azido, cyano, halo, hydroxyl, keto, thioketo, carboxyl, carboxyalkyl, thioaryloxy, thioheteroaryloxy, heterocycloxy, thiol, thioalkoxy, substituted thioalkoxy, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocycle, heterocycloxy, hydroxyamino, alkoxyamino, nitro, -SO-alkyl, -SO-substituted alkyl, -SO-aryl, -SO-heteroaryl, -SO₂-alkyl, -SO₂-substituted alkyl, -SO₂-aryl or -SO₂-heteroaryl;

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X is alkylene optionally substituted with one, two, or three hydroxy groups, alkylene wherein one, two, or three carbon atoms have been replaced by an oxygen atom, or an -alkylene-phenylene-alkylene- wherein the phenylene ring is optionally substituted with one or two chloro or fluoro groups;
or a pharmaceutically acceptable salt thereof.

Claims 2- 3 (Canceled).

Claim 4 (Previously presented). The compound of claim 1 wherein R¹ is hydrogen, methyl, or ethyl.

Claims 5-9 (Canceled).

Claim 10 (Previously presented). The compound of claim 1 wherein R^x is (C₁-C₆)alkyl, (C₂-C₆)alkenyl, (C₂-C₆)alkynyl, each optionally substituted with 1 to 3 methoxy, ethoxy or fluoro substituents.

Claim 11 (Previously presented). The compound of claim 1 wherein R^x is (C₁-C₆)alkyl optionally substituted with 1 to 3 methoxy, ethoxy, or fluoro substituents.

Claim 12 (Original). The compound of claim 1 wherein R^x is methyl, ethyl, propyl, isopropyl, butyl, isobutyl or secbutyl, optionally substituted with methoxy or ethoxy or with 1 to 3 or fluoro substituents.

Claim 13 (Previously presented). The compound of claim 1 wherein R^x is methyl, ethyl, methoxymethyl, ethoxymethyl, methoxyethyl, ethoxyethyl, fluoromethyl, difluoromethyl, trifluoromethyl or trifluoromethoxymethyl.

Claim 14 (Previously presented). The compound of claim 1 wherein R^x is methyl, ethyl, methoxymethyl, fluoromethyl, difluoromethyl, or trifluoromethyl.

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Claims 15-17 (Canceled).

Claim 18 (Previously presented). The compound of claim 1 wherein B is piperidin-3-yl or piperidin-4-yl.

Claim 19 (Original). The compound of claim 1 wherein B taken together with R^x is 4-methylpiperidine-1,4-diyil.

Claim 20 (Canceled).

Claim 21 (Previously presented). The compound of claim 1 wherein: R⁴⁶ is alkyl or substituted alkyl; R⁴⁷ is alkyl, substituted alkyl, or heterocycle; or R⁴⁶ and R⁴⁷ together with the nitrogen atom to which they are attached form a heterocycle.

Claims 22-27 (Canceled).

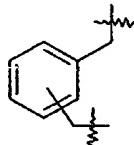
Claim 28 (Previously presented). The compound of claim 1 wherein X is an alkylene group having from 3 to 20 carbon atoms; wherein one or more carbon atoms in the alkylene group is optionally replaced with -O-; and wherein the chain is optionally substituted on carbon with one or more hydroxyl groups.

Claim 29 (Previously presented). The compound of claim 1 wherein X is nonane-1,9-diyil, octane-1,8-diyil, propane-1,3-diyil, 2-hydroxypropane-1,3-diyil, or 5-oxa-nonane-1,9-diyil.

Claim 30 (Previously presented). The compound of claim 1 wherein X has the following formula:

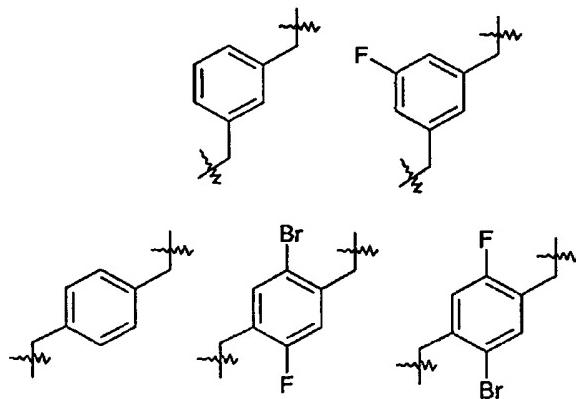
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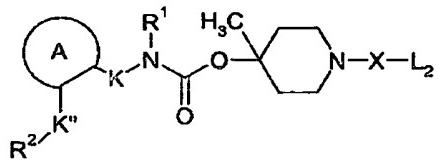
wherein the phenyl ring is optionally substituted with 1, 2, or 3 fluoro groups.

Claim 31 (Previously presented). The compound of claim 1 wherein X has one of the following formulas:



Claims 32-33 (Canceled).

Claim 34 (Previously presented). The compound of claim 1 wherein the compound has the formula:



or a pharmaceutically acceptable salt thereof.

Claim 35 (Canceled).

Claim 36 (Previously Presented). The compound of claim 34 wherein X is an alkylene group

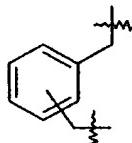
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having from 3 to 20 carbon atoms; wherein one or more carbon atoms in the alkylene group is optionally replaced with -O-; and wherein the chain is optionally substituted on carbon with one or more hydroxyl groups.

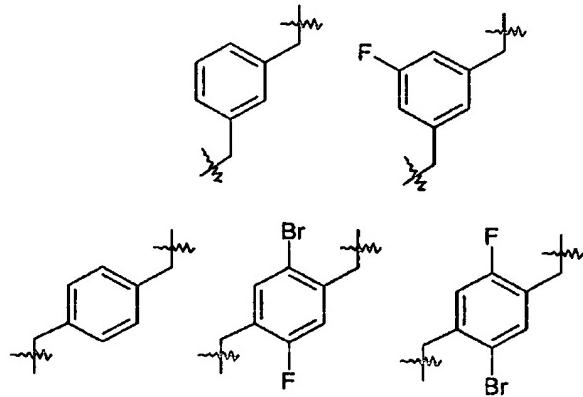
Claim 37 (Original). The compound of claim 34 wherein X is nonane-1,9-diyl, octane-1,8-diyl, propane-1,3-diyl, 2-hydroxypropane-1,3-diyl, or 5-oxa-nonane-1,9-diyl.

Claim 38 (Original). The compound of claim 34 wherein X has the following formula:



wherein the phenyl ring is optionally substituted with 1, 2, or 3 fluoro groups.

Claim 39 (Previously Presented). The compound of claim 34 wherein X has one of the following formulas:



Claim 40 (Canceled).

Claim 41 (Previously presented). The compound of claim 1 wherein R⁴⁶ is alkyl that is optionally substituted with from 1 to 5 substituents independently selected from the group consisting of alkoxy, substituted alkoxy, cycloalkyl, substituted cycloalkyl, cycloalkenyl,

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substituted cycloalkenyl, acyl, acylamino, acyloxy, amino, aminoacyl, aminoacyloxy, oxyaminoacyl, cyano, halo, hydroxyl, keto, thioketo, carboxyalkyl, thioaryloxy, thioheteroaryloxy, thioheterocycloxy, thiol, thioalkoxy, substituted thioalkoxy, heterocycle, heterocycloxy, hydroxyamino, alkoxyamino, and NR^aR^b, wherein R^a and R^b may be the same or different [and] and are chosen from hydrogen, alkyl, substituted alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, and heterocycle.

Claim 42 (Previously presented). The compound of claim 1 wherein R⁴⁶ is 3-piperidinyl, 4-piperidinyl, or 3-pyrrolidinyl, which R⁴⁶ is optionally substituted with 1 to 3 substituents independently selected from the group consisting of alkoxy, substituted alkoxy, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, acyl, acylamino, acyloxy, amino, substituted amino, aminoacyl, aminoacyloxy, oxyaminoacyl, cyano, halo, hydroxyl, keto, thioketo, carboxyalkyl, thioaryloxy, thioheteroaryloxy, thioheterocycloxy, thiol, thioalkoxy, substituted thioalkoxy, heterocycle, heterocycloxy, hydroxyamino, alkoxyamino, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, and substituted alkynyl.

Claim 43 (Previously presented). The compound of claim 1 wherein R⁴⁶ and R⁴⁷ together with the nitrogen atom to which they are attached form a piperidine or pyrrolidine ring which ring is optionally substituted with 1 to 3 substituents independently selected from the group consisting of alkoxy, substituted alkoxy, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, acyl, acylamino, acyloxy, amino, substituted amino, aminoacyl, aminoacyloxy, oxyaminoacyl, cyano, halo, hydroxyl, keto, thioketo, carboxyalkyl, thioaryloxy, thioheteroaryloxy, thioheterocycloxy, thiol, thioalkoxy, substituted thioalkoxy, heterocycle, heterocycloxy, hydroxyamino, alkoxyamino, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, and substituted alkynyl.

Claim 44 (Previously presented). The compound of claim 1 wherein R⁴⁶ and R⁴⁷ together with the nitrogen atom to which they are attached form a heterocycle that is an aza-crown ether.

Claim 45 (Original). The compound of claim 44 wherein the aza-crown ether is 1-aza-12-crown-

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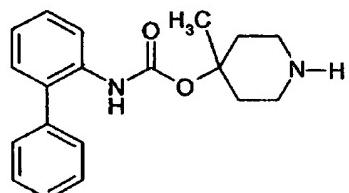
4, 1-aza-15-crown-5, or 1-aza-18-crown-6.

Claim 46 (Canceled).

Claim 47 (Previously presented). A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of claim 1.

Claims 48-50 (Canceled).

Claim 51 (Previously presented). A compound having formula (V):



(V)

or a salt thereof.

Claim 52 (Canceled).